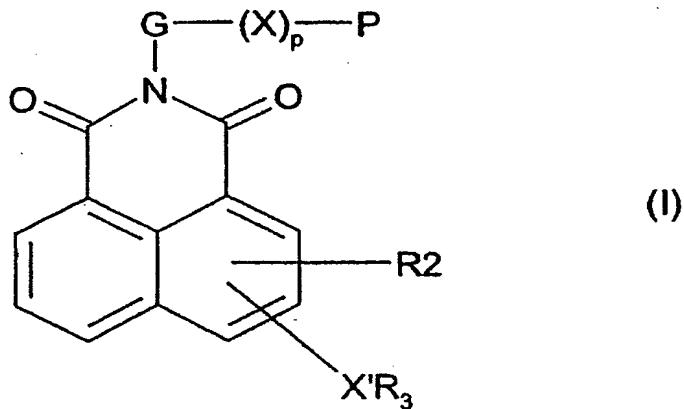


CLAIMS

1. A cosmetic or pharmaceutical composition comprising, in a physiologically acceptable medium, at least one polymer comprising at least one monomeric compound of formula (I):



10 in which:

- the groups R2 and X'R3 are present on the same ring or each on a different ring;
- R2 and R3 represent, independently of each other, a hydrogen atom, a halogen or a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 30 carbon atoms; optionally substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

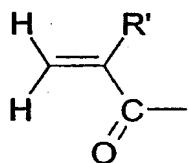
X and X' represent, independently of each other, -O-, -S-, -SO-, -SO₂-, -NH- and -NR₄- with R₄ representing a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 30 carbon atoms, optionally substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

- p is equal to 0 or 1

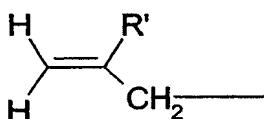
5 - G is a linear, branched and/or cyclic, saturated and/or unsaturated divalent carbon-based radical containing 1 to 30 carbon atoms, optionally substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

10

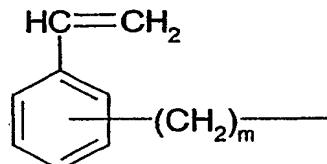
- P is a polymerizable group chosen from one of the following formulae:



(IIIa)



(IIIb)



(IIIc)

in which:

15

- R' represents H or a linear or branched, saturated C₁₋₆ hydrocarbon-based radical,

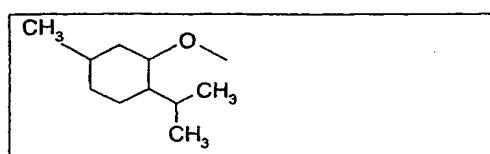
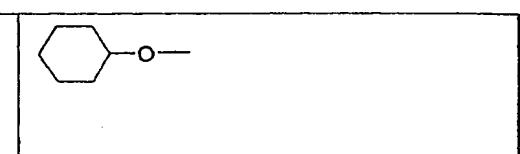
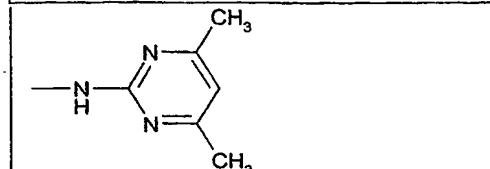
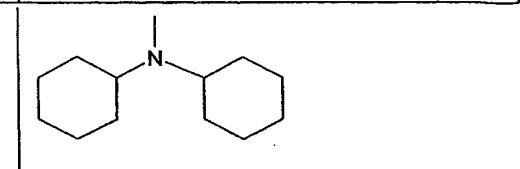
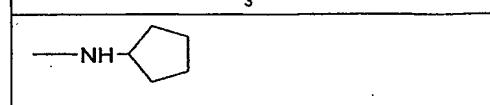
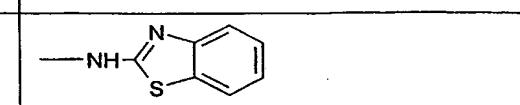
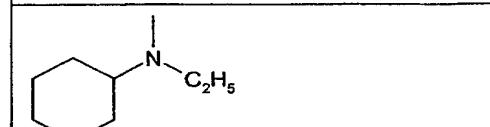
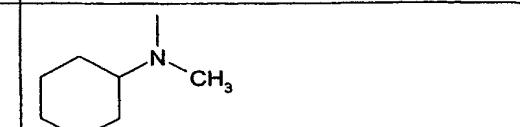
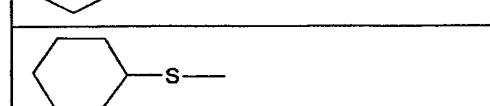
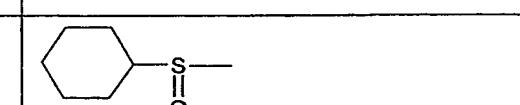
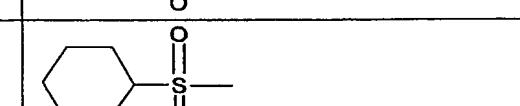
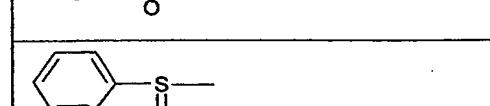
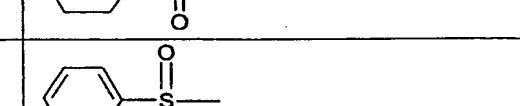
20

2. The composition as claimed in claim 1, in which R₂ is a hydrogen atom.

25

3. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, R₃ is a cyclic, linear and/or branched, saturated and/or unsaturated carbon-based and especially hydrocarbon-based radical, optionally comprising a hydrocarbon-based ring that is itself saturated and/or unsaturated, containing 2 to 18, especially 3 to 14 or even 6 to 12 carbon atoms, and may comprise at least one heteroatom, especially one, two or three nitrogen, sulfur and/or oxygen atoms.

4. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, X'R3 is a radical -NH-(CH₂)_nH; -O-(CH₂)_nH, for example ethoxy or 5 methoxy; -S-(CH₂)_nH, -SO-(CH₂)_nH or -SO₂-(CH₂)_nH with n being an integer between 1 and 30 and especially between 4 and 12; or alternatively C₆-C₁₈ -NH-cycloalkyl, especially -NH-cyclohexyl, -NH-cyclooctyl, -NH-cyclodecyl or -NH-cyclododecyl; or alternatively 10 C₆-C₁₈ -S-cycloalkyl, C₆-C₁₈ -SO-cycloalkyl or C₆-C₁₈ -SO₂-cycloalkyl; or alternatively a radical chosen from the following:

5. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, the divalent radical G is a linear, branched and/or cyclic, 5 saturated or unsaturated divalent hydrocarbon-based radical optionally comprising a hydrocarbon-based ring that is itself saturated or unsaturated, containing in total 2 to 18 and especially 3 to 8 carbon atoms, optionally substituted with one or more groups chosen 10 from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, S and Si.

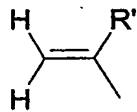
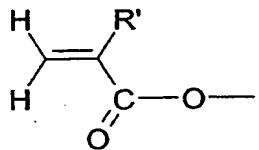
15. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, G is chosen from linear or branched, saturated divalent hydrocarbon-based radicals optionally comprising a saturated hydrocarbon-based ring, containing in total 2 to 16 and especially 3 to 10 carbon atoms.

20. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, G is chosen from methylene, ethylene, n-propylene, isopropylene (or 1-methylethylene and 2-methyl- 25 ethylene), n-butylene, isobutylene, pentylene, especially n-pentylene, hexylene, especially n-hexylene, or cyclohexylene, heptylene, octylene, cyclooctylene, decylene, cyclodecylene, cyclohexyl-dimethylene, dodecylene, cyclododecylene.

30. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, X is chosen from -O-, -S-, -NH- or -NR₄-, preferentially O; and R₄ preferentially represents a linear, branched 35 and/or cyclic, saturated or unsaturated hydrocarbon-based radical containing 2 to 12 carbon atoms, optionally substituted with one or more groups chosen from = O, OH and NH₂.

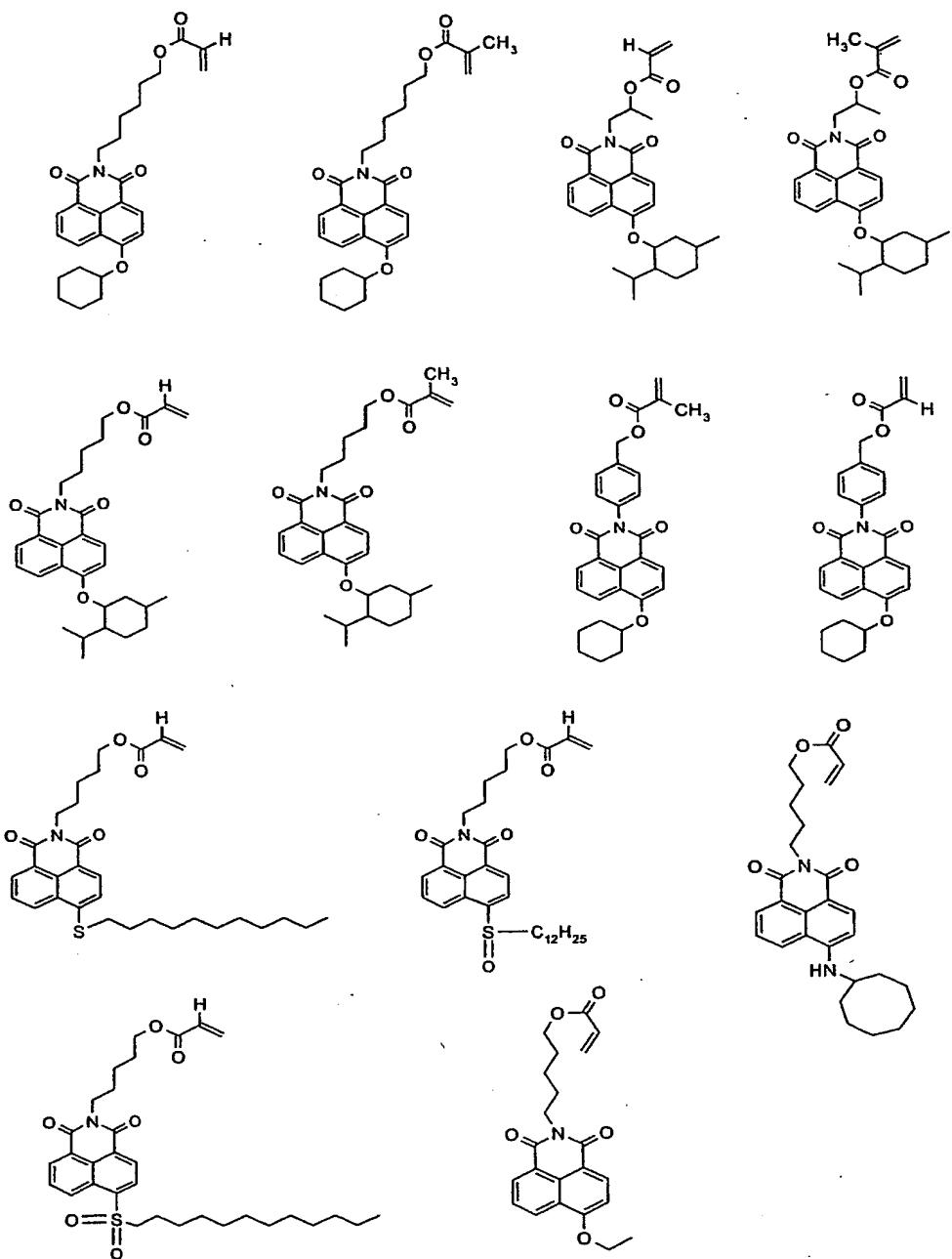
9. The composition as claimed in one of the preceding claims, in which, in the monomeric compound, the polymerizable group P is chosen from one of the following formulae:

5



in which R' represents H or methyl.

10 10. The composition as claimed in one of the preceding claims, in which the monomeric compound corresponds to one of the following formulae:



11. The composition as claimed in one of the preceding claims, in which the polymer is a homopolymer of a monomeric compound as defined in one of claims 1 to 10.

5

12. The composition as claimed in one of claims 1 to 10, in which the polymer is a copolymer comprising only monomeric compounds as defined in one of claims 1 to 10.

10

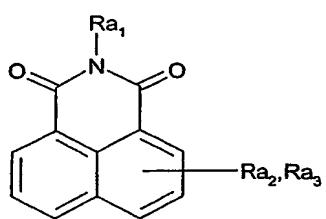
13. The composition as claimed in one of claims 1 to 10, in which the polymer is a copolymer comprising at least one monomeric compound as defined in one of claims 1 to 10, and at least one additional comonomer.

5

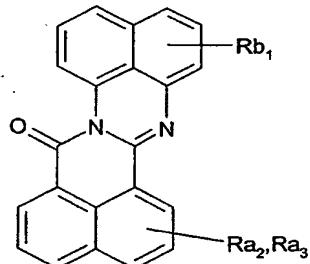
14. The composition as claimed in either of claims 12 to 13, in which the polymer is a statistical, alternating, grafted, block or gradient copolymer.

10 15. The composition as claimed in one of claims 12 to 14, in which the monomeric compound is present in an amount of from 0.01% to 70% by weight relative to the weight of said polymer, especially in an amount of from 0.1% to 50% by weight, in particular from 0.5% to 30%
15 by weight, or even from 1% to 20% by weight and better still from 2% to 10% by weight, the additional comonomers, alone or as a mixture, representing the remainder to 100% by weight.

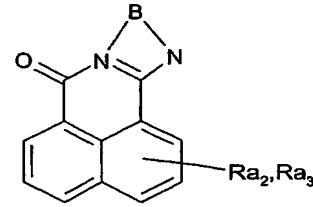
20 16. The composition as claimed in one of claims 12 to 15, in which the polymer comprises at least one additional comonomer with an optical effect chosen from the compounds of formula (A), (B) and/or (C):



(A)



(B)



(C)

25

in which:

- R_a represents a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 32 carbon atoms; optionally substituted with one or more groups chosen from = O, OH, NH₂ and

halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

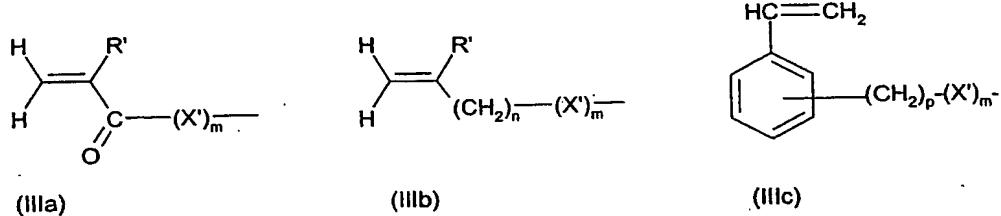
- Rb1 is chosen from (i) a hydrogen atom, (ii) a halogen, (iii) a linear, branched and/or cyclic, 5 saturated and/or unsaturated carbon-based radical containing 1 to 12 carbon atoms, optionally substituted with one or more groups chosen from = O, OH and NH₂ and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S; (iv) a group 10 NRR' with R and R' being, independently of each other, a hydrogen atom or a linear, cyclic or branched, saturated C1-6 hydrocarbon-based radical, especially methyl, ethyl, propyl, isopropyl, n-butyl, isobutyl, tert-butyl, pentyl or hexyl;

15 - Ra2 and Ra3, which are present on the same ring or each on a different ring, represent, independently of each other, a hydrogen, a halogen or a group of formula -Xa-Ga-Pa (II), with the proviso that at least one of the radicals Ra2 and/or Ra3 represents a group of 20 formula (II), in which:

- Xa is chosen from the groups -O-, -S-, -SO-, -SO₂-, -NH- and -NR₄- with R₄ representing a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 30 carbon atoms, 25 optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

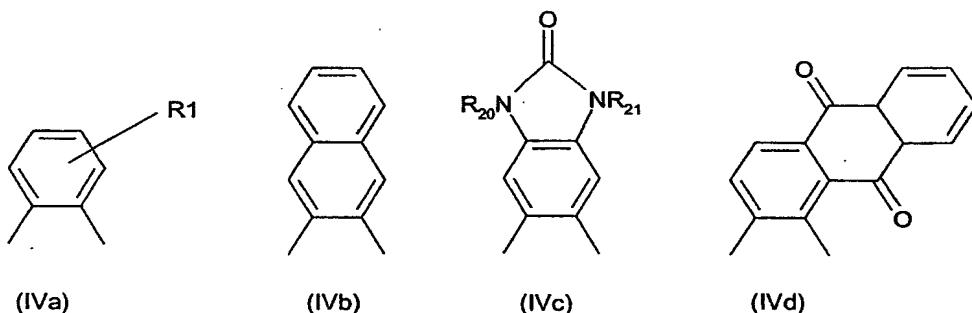
- Ga is a linear, branched and/or cyclic, saturated 30 and/or unsaturated divalent carbon-based radical containing 1 to 32 carbon atoms, optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

35 - Pa is a polymerizable group chosen from one of the following formulae:



in which:

- R' represents H or a linear or branched, saturated C1-6 hydrocarbon-based radical,
- 5 - X' represents O, NH or NR" with R" representing a radical chosen from C1-6 alkyl, C6-10 aryl, (C6-10)aryl(C1-6)alkyl and (C1-6)alkyl(C6-10)aryl radicals, the alkyl and/or aryl groups also possibly being substituted with one or more groups chosen from OH, halogen, C1-6 alkoxy and C6-10 aryloxy; and
- 10 - m is equal to 0 or 1; n is equal to 0 or 1; p is equal to 0, 1 or 2;
- B represents one of the following divalent aromatic groups (IVa) to (IVd):



15

in which:

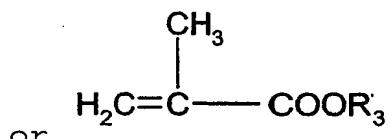
- R1 is a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 32 carbon atoms, optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms;
- 20 - R₂₀ and R₂₁ are, independently of each other, a hydrogen atom, a linear or branched C1-8 alkyl radical or a cyclopentyl, cyclohexyl, cyclooctyl, cyclodecyl, cyclododecyl, benzyl, naphthyl or phenyl radical.

17. The composition as claimed in one of claims 12 to 16, in which the polymer comprises at least one additional comonomer chosen, alone or as a mixture, from the following monomers:

5

- (i) ethylenic hydrocarbons containing from 2 to 10 carbons, such as ethylene, isoprene or butadiene;
- (ii) the (meth)acrylates of formula:

10 CH₂ = CHCOOR'₃



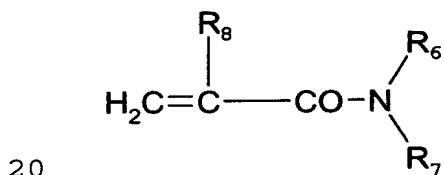
or

in which R'₃ represents:

- a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group or a phenyl group;
- 20 R'₃ may especially be a methyl, ethyl, propyl, n-butyl, isobutyl, tert-butyl, hexyl, ethylhexyl, octyl, lauryl, isoctyl, isodecyl, dodecyl, cyclohexyl, t-butyl-cyclohexyl or stearyl group; 2-ethylperfluorohexyl; or a C₁₋₄ hydroxyalkyl group such as 2-hydroxyethyl, 25 2-hydroxybutyl or 2-hydroxypropyl; or a (C₁₋₄)alkoxy(C₁₋₄)alkyl group such as methoxyethyl, ethoxyethyl or methoxypropyl,
- a C₃ to C₁₂ cycloalkyl group such as an isobornyl group,
- 30 - a C₃ to C₂₀ aryl group such as a phenyl group,
- a C₄ to C₃₀ aralkyl group (C₁ to C₈ alkyl group) such as 2-phenylethyl, t-butylbenzyl or benzyl,
- a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring 35 being aromatic or non-aromatic,
- a heterocycloalkyl group (1 to 4 C alkyl), such as

furfurylmethyl or tetrahydrofurfurylmethyl,
said cycloalkyl, aryl, aralkyl, heterocyclic or
heterocycloalkyl groups possibly being optionally
substituted with one or more substituents chosen from
5 hydroxyl groups, halogen atoms and linear or branched
 C_{1-4} alkyl groups in which is (are) optionally
intercalated one or more heteroatoms chosen from O, N,
S and P, said alkyl groups also possibly being
optionally substituted with one or more substituents
10 chosen from hydroxyl groups, halogen atoms (Cl, Br, I
and F), and groups $Si(R_4R_5)$, in which R_4 and R_5 , which
may be identical or different, represent a C_1 to C_6
alkyl group or a phenyl group,
- R'_3 may also be a group $-(C_2H_4O)_m-R''$, with $m = 5$ to 150
15 and $R'' = H$ or C_1 to C_{30} alkyl, for example -POE-methyl
or -POE-behenyl;

- (iii) the (meth)acrylamides of formula:



in which R_8 denotes H or methyl; and R_7 and R_6 , which
may be identical or different, represent:

- a hydrogen atom; or
25 - a linear or branched alkyl group of 1 to 18 carbon
atoms, in which is (are) optionally intercalated one or
more heteroatoms chosen from O, N, S and P; said alkyl
group also possibly being optionally substituted with
one or more substituents chosen from hydroxyl groups,
30 halogen atoms (Cl, Br, I and F), and groups $Si(R_4R_5)$, in
which R_4 and R_5 , which may be identical or different,
represent a C_1 to C_6 alkyl group or a phenyl group;
35 R_6 and/or R_7 may especially be a methyl, ethyl, propyl,
n-butyl, isobutyl, tert-butyl, hexyl, ethylhexyl,
octyl, lauryl, isoctyl, isodecyl, dodecyl, cyclohexyl,
t-butylcyclohexyl or stearyl group;

2-ethylperfluorohexyl; or a C₁₋₄ hydroxyalkyl group such as 2-hydroxyethyl, 2-hydroxybutyl or 2-hydroxypropyl; or a (C₁₋₄)alkoxy(C₁₋₄)alkyl group such as methoxyethyl, ethoxyethyl or methoxypropyl,

5 - a C₃ to C₁₂ cycloalkyl group, such as an isobornyl group,
- a C₃ to C₂₀ aryl group such as a phenyl group,
- a C₄ to C₃₀ aralkyl group (C₁ to C₈ alkyl group) such as 2-phenylethyl, t-butylbenzyl or benzyl,

10 - a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,
- a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl,

15 said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched C_{1-C₄} alkyl groups in which is (are) optionally

20 intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₄R₅), in which R₄ and R₅, which

25 may be identical or different, represent a C₁ to C₆ alkyl group, or a phenyl group;

- (iv) the vinyl compounds of formulae:
CH₂=CH-R₉, CH₂=CH-CH₂-R₉ or CH₂=C(CH₃)-CH₂-R₉,
30 in which R₉ is a hydroxyl group, halogen (Cl or F), NH₂, OR₁₀ in which R₁₀ represents a phenyl group or a C₁ to C₁₂ alkyl group (the monomer is a vinyl or allylic ether); acetamide (NHCOCH₃); a group OCOR₁₁ in which R₁₁ represents a linear or branched alkyl group of 2 to 12
35 carbons (the monomer is a vinyl or allylic ester); or a group chosen from:
- a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl

group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups $\text{Si}(\text{R}_4\text{R}_5)$, in which R_4 and R_5 , which may be identical or different,
5 represent a C_1 to C_6 alkyl group or a phenyl group;
- a C_3 to C_{12} cycloalkyl group such as isobornyl or cyclohexane,
- a C_3 to C_{20} aryl group such as phenyl,
- a C_4 to C_{30} aralkyl group (C_1 to C_8 alkyl group) such
10 as 2-phenylethyl; benzyl,
- a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,
- a heterocycloalkyl group (1 to 4 C alkyl), such as
15 furfurylmethyl or tetrahydrofurfurylmethyl,
said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched 1
20 to 4 C alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I
25 and F) and groups $\text{Si}(\text{R}_4\text{R}_5)$ in which R_1 and R_2 , which may be identical or different, represent a C_1 to C_6 alkyl group, or a phenyl group;

- (v) (meth)acrylic, (meth)acrylamide or vinyl monomers
30 containing a fluoro or perfluoro group, such as ethylperfluoroctyl or 2-ethylperfluorohexyl (meth)acrylate;

- (vi) silicone-based (meth)acrylic, (meth)acrylamide
35 or vinyl monomers, such as methacryloxypropyltris(trimethylsiloxy)silane or acryloxypropylpolydimethylsiloxane;

- (vii) ethylenically unsaturated monomers comprising

at least one carboxylic, phosphoric or sulfonic acid, or anhydride, function, for instance acrylic acid, methacrylic acid, crotonic acid, maleic anhydride, itaconic acid, fumaric acid, maleic acid,
5 acrylamidopropanesulfonic acid, vinylbenzoic acid and vinylphosphoric acid, and the salts thereof;

- (viii) ethylenically unsaturated monomers comprising at least one tertiary amine function, for instance
10 2-vinylpyridine, 4-vinylpyridine, dimethylaminoethyl methacrylate, diethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide, and the salts thereof.

15 18. The composition as claimed in one of claims 12 to 17, in which the additional comonomer(s) is (are) present in an amount of from 30% to 99.99% by weight, especially in an amount of from 50% to 99.9% by weight, in particular from 70% to 99.5% by weight, or even from
20 80% to 99% by weight, and better still from 90% to 98% by weight, relative to the weight of the final polymer.

19. The composition as claimed in one of claims 12 to 18, in which the additional comonomers are chosen,
25 alone or as a mixture, from C₁-C₁₈ alkyl or C₃-C₁₂ cycloalkyl (meth)acrylates, and especially from methyl acrylate, methyl methacrylate, isobornyl acrylate, isobornyl methacrylate, isobutyl acrylate, isobutyl methacrylate, 2-ethylhexyl acrylate, 2-ethylhexyl
30 methacrylate, dodecyl acrylate, dodecyl methacrylate, stearyl acrylate, stearyl methacrylate, trifluoroethyl acrylate and trifluoroethyl methacrylate; or alternatively acrylic acid, methacrylic acid, methacryloxypropyltris(trimethylsiloxy)silane, acryloxypropyltris(trimethylsiloxy)silane, acryloxypropyl-
35 polydimethylsiloxane and methacryloxypropylpolydimethylsiloxane.

20. The composition as claimed in one of the preceding

claims, in which the polymer has a weight-average molecular mass (Mw) of between 5000 and 600 000 g/mol, especially between 10 000 and 300 000 g/mol and better still between 20 000 and 150 000 g/mol.

5

21. The composition as claimed in one of the preceding claims, in which the polymer is present, alone or as a mixture, in an amount of from 0.01% to 60% by weight, preferably 0.1% to 50% by weight, especially 1% to 25% 10 by weight or even 3% to 15% by weight and better still 5% to 12% by weight, relative to the total weight of the composition.

22. The composition as claimed in one of the preceding 15 claims, in which the physiologically acceptable medium comprises a hydrophilic medium comprising water or a water/hydrophilic organic solvent(s) mixture and/or comprises a fatty phase.

20 23. The composition as claimed in one of the preceding claims, in which the fatty phase comprises waxes, pasty fatty substances, gums, lipophilic organic solvents and oils, and/or mixtures thereof.

25 24. The composition as claimed in one of the preceding claims, also comprising a particulate phase that may comprise pigments and/or nacres and/or fillers.

30 25. The composition as claimed in one of the preceding claims, comprising dyestuffs chosen from water-soluble dyes and/or liposoluble dyes.

35 26. The composition as claimed in one of the preceding claims, comprising at least one additional polymer such as a film-forming polymer.

27. The composition as claimed in one of the preceding claims, comprising at least one ingredient chosen from vitamins, thickeners, gelling agents, trace elements,

softeners, sequestrants, fragrances, acidifying or basifying agents, preserving agents, sunscreens, surfactants, antioxidants, hair-loss counteractants, antidandruff agents, propellants and ceramides, or 5 mixtures thereof.

28. The composition as claimed in one of the preceding claims, which is in the form of a suspension, a dispersion especially of oil in water by means of 10 vesicles; an optionally thickened or even gelled oily solution; an oil-in-water, water-in-oil or multiple emulsion; a gel or a mousse; an oily or emulsified gel; a dispersion of vesicles, especially lipid vesicles; a two-phase or multi-phase lotion; a spray; a loose, 15 compact or cast powder; an anhydrous paste; a lotion, a cream, a pomade, a soft paste, an ointment, a cast or molded solid especially as a stick or in a dish, or alternatively a compacted solid.

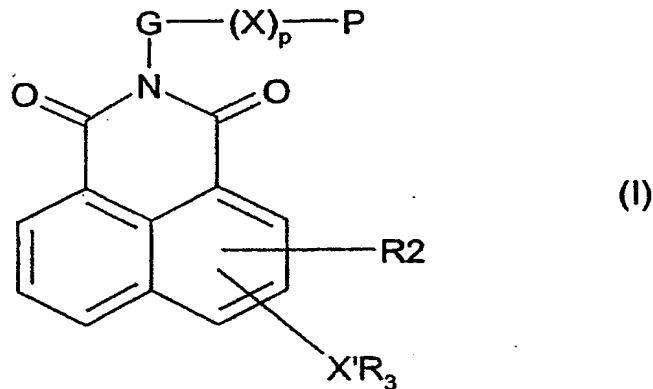
20 29. The composition as claimed in one of the preceding claims, which is in the form of a care and/or makeup product for bodily or facial skin, the lips, the nails, the eyelashes, the eyebrows and/or the hair, an antisun or self-tanning product, or a hair product for caring 25 for, treating, shaping, making up or dyeing the hair.

30 30. The composition as claimed in one of the preceding claims, which is in the form of a makeup composition, especially a complexion product such as a foundation, a 35 makeup rouge or an eyeshadow; a lip product such as a lipstick or a lipcare product; a concealer product; a blusher, a mascara or an eyeliner; an eyebrow makeup product, a lip pencil or an eye pencil; a nail product such as a nail varnish or a nailcare product; a body makeup product; a hair makeup product (hair mascara or hair lacquer); a composition for protecting or caring for the skin of the face, the neck, the hands or the body, especially an antiwrinkle composition or a moisturizing or treating composition; an antisun or

artificial tanning composition; a hair product, especially for dyeing, holding the hairstyle, shaping the hair, caring for, treating or cleansing the hair, such as shampoos, hairsetting gels or lotions, blow-
5 drying lotions, and fixing and styling compositions such as lacquers or sprays.

31. A cosmetic process for making up or caring for keratin materials, especially bodily or facial skin, the lips, the nails, the eyelashes, the eyebrows and/or the hair, comprising the application to said materials of a cosmetic composition as defined in any one of claims 1 to 30.

15 32. A monomeric compound of formula (I):



in which:

20 - the groups R2 and X'R3 are present on the same ring or each on a different ring;

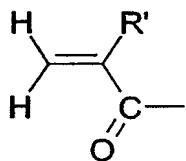
- R2 and R3 represent, independently of each other, a hydrogen atom, a halogen or a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical, containing 1 to 30 carbon atoms; optionally substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

- X and X' represent independently of one another -O-, -S-, -SO-, -SO₂-, -NH- and -NR₄- groups with R₄ representing a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 30 carbon atoms, optionally substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

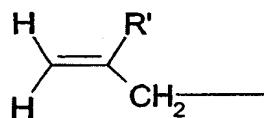
5 10 p is equal to 0 or 1,

- G is a linear, branched and/or cyclic, saturated and/or unsaturated divalent carbon-based radical, containing 1 to 30 carbon atoms, optionally substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;

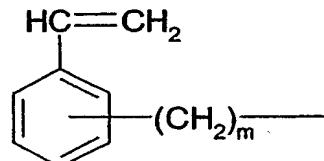
15 20 - P is a polymerizable group chosen from one of the following formulae:



(IIIa)



(IIIb)



(IIIc)

in which:

25 - R' represents H or a linear or branched, saturated C1-6 hydrocarbon-based radical,

- m is equal to 0 or 1;

given that:

- when R₂ = H and simultaneously P is of formula (IIIb), then X'R₃ is other than OCH₃;

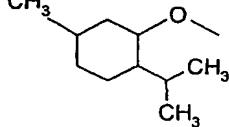
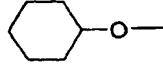
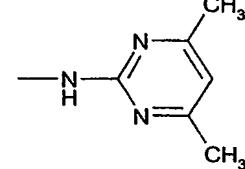
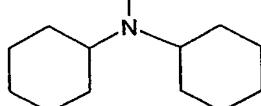
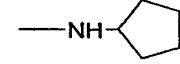
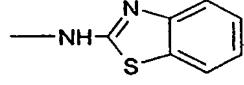
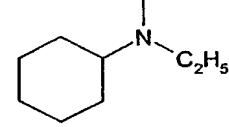
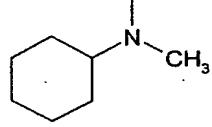
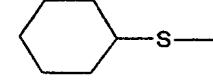
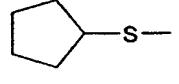
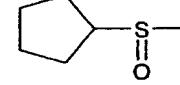
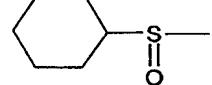
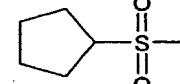
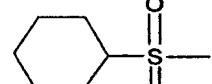
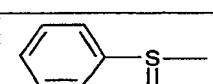
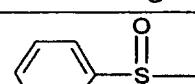
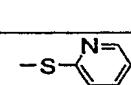
30 - when R₂ = H and simultaneously P is of formula (IIIa), and X is equal to O, NH or NR₄, and X' is equal

to O, S or NR₄, then R₃ is chosen from (i) optionally substituted and/or optionally interrupted saturated, linear or branched C₂-C₅ or C₇-C₂₄ alkyl radicals and (ii) optionally substituted and/or optionally interrupted saturated cyclic C₅-C₁₈ alkyl radicals.

33. The monomeric compound as claimed in claim 32, in which R₂ is a hydrogen atom.

10 34. The monomeric compound as claimed in either of claims 32 and 33, in which R₃ is a cyclic, linear and/or branched, saturated and/or unsaturated carbon-based and especially hydrocarbon-based radical, optionally comprising a hydrocarbon-based ring that is 15 itself saturated and/or unsaturated, containing 2 to 18, especially 3 to 14 or even 6 to 12 carbon atoms, and may comprise at least one heteroatom, especially one, two or three nitrogen, sulfur and/or oxygen atoms.

20 35. The monomeric compound as claimed in one of claims 32 to 34, in which X'R₃ is a radical -NH-(CH₂)_nH; -O-(CH₂)_nH, for example ethoxy or methoxy; -S-(CH₂)_nH, -SO-(CH₂)_nH or -SO₂-(CH₂)_nH with n being an integer between 1 and 30 and especially between 4 and 12; or 25 alternatively C₆-C₁₈ -NH-cycloalkyl, especially -NH-cyclohexyl, -NH-cyclooctyl, -NH-cyclodecyl or -NH-cyclododecyl; or alternatively C₆-C₁₈ -S-cycloalkyl, C₆-C₁₈ -SO-cycloalkyl or C₆-C₁₈ -SO₂-cycloalkyl; or alternatively a radical chosen from the 30 following:

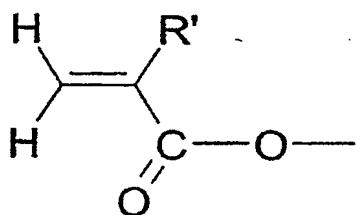
36. The monomeric compound as claimed in one of claims 32 to 35, in which the divalent radical G is a 5 linear, branched and/or cyclic, saturated or unsaturated divalent hydrocarbon-based radical optionally comprising a hydrocarbon-based ring that is itself saturated or unsaturated, containing in total 2 to 18 and especially 3 to 8 carbon atoms, optionally 10 substituted with one or more groups chosen from =O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, S and Si.

37. The monomeric compound as claimed in one of claims 32 to 36, in which G is chosen from linear or branched, saturated divalent hydrocarbon-based radicals 5 optionally comprising a saturated hydrocarbon-based ring, containing in total 2 to 16 and especially 3 to 10 carbon atoms.

38. The monomeric compound as claimed in one of 10 claims 32 to 37, in which G is chosen from methylene, ethylene, n-propylene, isopropylene (or 1-methylethylene and 2-methylethylene), n-butylene, isobutylene, pentylene, especially n-pentylene, hexylene, especially n-hexylene or cyclohexylene, 15 heptylene, octylene, cyclooctylene, decylene, cyclodecylene, cyclohexyldimethylene, dodecylene, cyclododecylene.

39. The monomeric compound as claimed in one of claims 20 32 to 38, in which X is chosen from -O-, -S-, -NH- and -NR₄-, preferentially O; and R₄ preferentially represents a linear, branched and/or cyclic, saturated or unsaturated hydrocarbon-based radical containing 2 to 12 carbon atoms, optionally substituted with one or 25 more groups chosen from = O, OH and NH₂.

40. The monomeric compound as claimed in one of claims 32 to 39, in which the polymerizable group P is of formula:

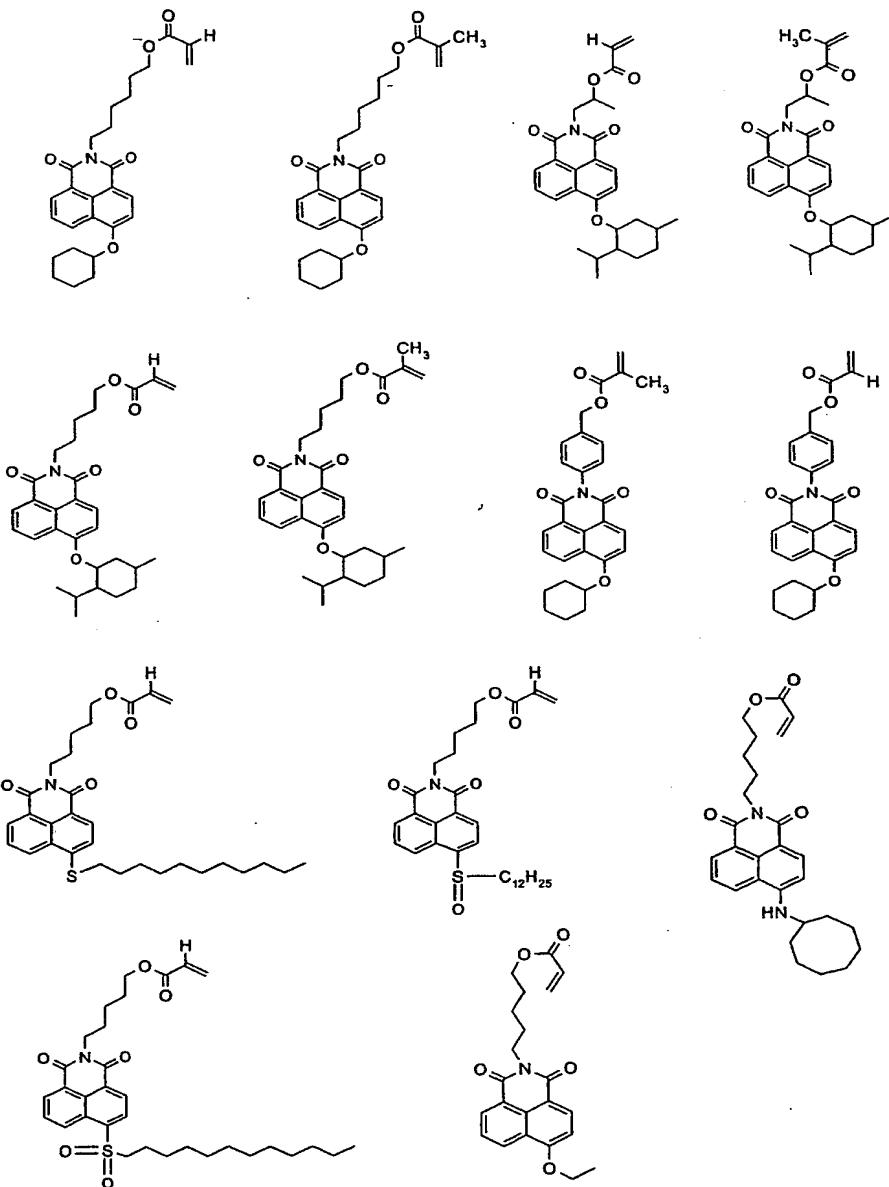


30 in which R' represents H or methyl.

41. The monomeric compound as claimed in one of claims 32 to 40, corresponding to formula (I) in which:

- R2 is hydrogen, X' is O, NH or NR₄, and R3 is a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 2 to 12 carbon atoms; and/or
- 5 - G is a linear, branched and/or cyclic, saturated and/or unsaturated divalent carbon-based radical containing 1 to 8 carbon atoms.

42. The monomeric compound as claimed in one of
10 claims 32 to 40, corresponding to one of the following
formulae:



43. A polymer comprising at least one monomeric compound as defined in one of claims 32 to 42.

5 44. The polymer as claimed in claim 43, characterized in that it is a homopolymer of a monomeric compound as defined in one of claims 32 to 42.

10 45. The polymer as claimed in claim 43, characterized in that it is a copolymer comprising only monomeric compounds as defined in one of claims 32 to 42.

15 46. The polymer as claimed in claim 45, characterized in that the monomeric compounds are each present in a proportion of from 0.5% to 99.5% by weight, especially 5% to 95% by weight, or even 10% to 90% by weight and better still each in a proportion of from 30% to 70% by weight, relative to the total weight of the polymer.

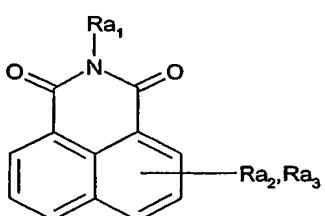
20 47. The polymer as claimed in claim 43, characterized in that it is a copolymer comprising at least one monomeric compound as defined in one of claims 32 to 42, and at least one additional comonomer.

25 48. The polymer as claimed in claim 47, characterized in that it is a statistical, alternating, grafted, block or gradient copolymer.

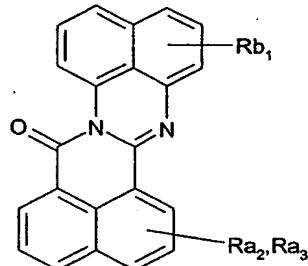
30 49. The polymer as claimed in either of claims 47 and 48, characterized in that the monomeric compound is present in an amount of from 0.01% to 70% by weight relative to the weight of said polymer, especially in an amount of from 0.1% to 50% by weight, in particular from 0.5% to 30% by weight, or even from 1% to 20% by weight and better still from 2% to 10% by weight, the additional comonomers, alone or as a mixture, representing the remainder to 100% by weight.

35 50. The polymer as claimed in one of claims 47 to 49, characterized in that it comprises at least one

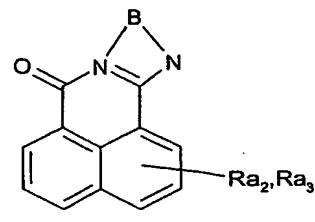
additional comonomer with an optical effect chosen from the compounds of formula (A), (B) and/or (C):



(A)



(B)



(C)

in which:

5 - Ra1 represents a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 32 carbon atoms; optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one
10 or more heteroatoms chosen from O, N, P, Si and S;

- Rb1 is chosen from (i) a hydrogen atom, (ii) a halogen, (iii) a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 12 carbon atoms, optionally substituted
15 with one or more groups chosen from = O, OH and NH₂ and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S; (iv) a group NRR' with R and R' being, independently of each other, a hydrogen atom or a linear, cyclic or branched,
20 saturated C1-6 hydrocarbon-based radical, especially methyl, ethyl, propyl, isopropyl, n-butyl, isobutyl, tert-butyl, pentyl or hexyl;

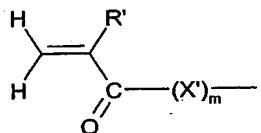
- Ra2 and Ra3, which are present on the same ring or each on a different ring, represent, independently of each other, a hydrogen, a halogen or a group of formula
25 -Xa-Ga-Pa (II), with the proviso that at least one of the radicals Ra2 and/or Ra3 represents a group of formula (II), in which:

- Xa is chosen from the groups -O-, -S-, -SO-, -SO₂-
30 , -NH- and -NR₄- with R₄ representing a linear, branched and/or cyclic, saturated and/or unsaturated

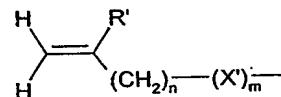
carbon-based radical containing 1 to 30 carbon atoms, optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O,

5 N, P, Si and S;

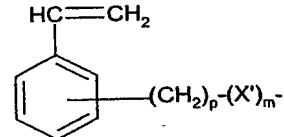
- Ga is a linear, branched and/or cyclic, saturated and/or unsaturated divalent carbon-based radical containing 1 to 32 carbon atoms, optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms; and/or optionally interrupted with one or more heteroatoms chosen from O, N, P, Si and S;
- Pa is a polymerizable group chosen from one of the following formulae:



(IIIa)



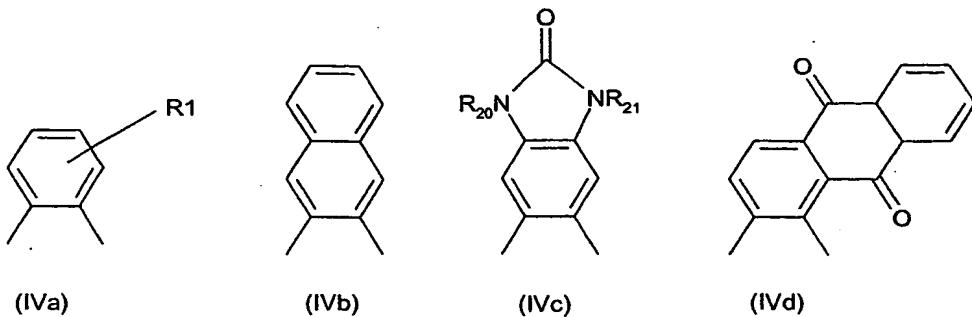
(IIIb)



(IIIc)

15 in which:

- R' represents H or a linear or branched, saturated C1-6 hydrocarbon-based radical,
- X' represents O, NH or NR" with R" representing a radical chosen from C1-6 alkyl, C6-10 aryl, (C6-20)aryl(C1-6)alkyl and (C1-6)alkyl(C6-10)aryl radicals, the alkyl and/or aryl groups also possibly being substituted with one or more groups chosen from OH, halogen, C1-6 alkoxy and C6-10 aryloxy; and
- m is equal to 0 or 1; n is equal to 0 or 1; p is equal to 0, 1 or 2;
- B represents one of the following divalent aromatic groups (IVa) to (IVd):



in which:

5 - R1 is a linear, branched and/or cyclic, saturated and/or unsaturated carbon-based radical containing 1 to 32 carbon atoms, optionally substituted with one or more groups chosen from = O, OH, NH₂ and halogen atoms;

10 - R20 and R21 are, independently of each other, a hydrogen atom, a linear or branched C1-8 alkyl radical or a cyclopentyl, cyclohexyl, cyclooctyl, cyclodecyl, cyclododecyl, benzyl, naphthyl or phenyl radical.

15 51. The polymer as claimed in one of claims 47 to 50, characterized in that it comprises at least one additional hydrophilic comonomer, or a mixture of such comonomers, which may be present in a proportion of from 1% to 99.99% by weight, especially 2-70% by weight, better still 5-50% by weight or even 10-30% by weight, relative to the total weight of the copolymer.

20 52. The polymer as claimed in one of claims 47 to 50, characterized in that it comprises at least one additional hydrophobic comonomer, or a mixture of such comonomers, which may be present in a proportion of from 1% to 99.99% by weight, especially 30-98% by weight, better still 50-95% by weight or even 70-90% by weight, relative to the total weight of the copolymer.

25 53. The polymer as claimed in one of claims 47 to 52, characterized in that it comprises at least one additional comonomer chosen, alone or as a mixture,

- (i) ethylenic hydrocarbons containing from 2 to 10 carbons, such as ethylene, isoprene or butadiene;

5 - (ii) the (meth)acrylates of formula:

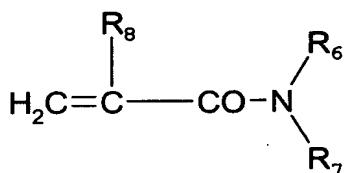


in which R'_3 represents:

- a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or 10 more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups $\text{Si}(\text{R}_4\text{R}_5)$, in which R_4 and R_5 , which may be identical or different, 15 represent a C_1 to C_6 alkyl group or a phenyl group; R'_3 may especially be a methyl, ethyl, propyl, n-butyl, isobutyl, tert-butyl, hexyl, ethylhexyl, octyl, lauryl, isoctyl, isodecyl, dodecyl, cyclohexyl, t-butylcyclohexyl or stearyl group; 2-ethylperfluorohexyl; or 20 a C_{1-4} hydroxyalkyl group such as 2-hydroxyethyl, 2-hydroxybutyl or 2-hydroxypropyl; or a $(\text{C}_{1-4})\text{alkoxy}(\text{C}_{1-4})\text{alkyl}$ group such as methoxyethyl, ethoxyethyl or methoxypropyl,
- a C_3 to C_{12} cycloalkyl group such as an isobornyl 25 group,
- a C_3 to C_{20} aryl group such as a phenyl group,
- a C_4 to C_{30} aralkyl group (C_1 to C_8 alkyl group) such as 30 2-phenylethyl, t-butylbenzyl or benzyl,
- a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,
- a heterocycloalkyl group (1 to 4 C alkyl), such as 35 furfurylmethyl or tetrahydrofurfurylmethyl, said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from

hydroxyl groups, halogen atoms and linear or branched C₁₋₄ alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being 5 optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group or a phenyl group,
10 - R'₃ may also be a group -(C₂H₄O)_m-R'', with m = 5 to 150 and R'' = H or C₁ to C₃₀ alkyl, for example -POE-methyl or -POE-behenyl;

15 - (iii) the (meth)acrylamides of formula:



in which R₈ denotes H or methyl; and R₇ and R₆, which may be identical or different, represent:

20 - a hydrogen atom; or
- a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with 25 one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group or a phenyl group; R₆ and/or R₇ may especially be a methyl, ethyl, propyl, 30 n-butyl, isobutyl, tert-butyl, hexyl, ethylhexyl, octyl, lauryl, isoctyl, isodecyl, dodecyl, cyclohexyl, t-butylcyclohexyl or stearyl group; 2-ethylperfluorohexyl; or a C₁₋₄ hydroxyalkyl group such as 2-hydroxyethyl, 2-hydroxybutyl or 2-hydroxypropyl; 35 or a (C₁₋₄)alkoxy(C₁₋₄)alkyl group such as methoxyethyl, ethoxyethyl or methoxypropyl,

- a C₃ to C₁₂ cycloalkyl group, such as an isobornyl group,
- a C₃ to C₂₀ aryl group such as a phenyl group,
- a C₄ to C₃₀ aralkyl group (C₁ to C₈ alkyl group) such as 2-phenylethyl, t-butylbenzyl or benzyl,
- a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,
- a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl, said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched C₁-C₄ alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group, or a phenyl group;

- (iv) the vinyl compounds of formulae:

25 CH₂=CH-R₉, CH₂=CH-CH₂-R₉ or CH₂=C(CH₃)-CH₂-R₉, in which R₉ is a hydroxyl group, halogen (Cl or F), NH₂, OR₁₀ in which R₁₀ represents a phenyl group or a C₁ to C₁₂ alkyl group (the monomer is a vinyl or allylic ether); acetamide (NHCOCH₃); a group OCOR₁₁ in which R₁₁ represents a linear or branched alkyl group of 2 to 12 carbons (the monomer is a vinyl or allylic ester); or a group chosen from:

30 - a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different,

represent a C₁ to C₆ alkyl group or a phenyl group;

- a C₃ to C₁₂ cycloalkyl group such as isobornyl or cyclohexane,
- a C₃ to C₂₀ aryl group such as phenyl,

5 - a C₄ to C₃₀ aralkyl group (C₁ to C₈ alkyl group) such as 2-phenylethyl; benzyl,

- a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,

10 - a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl, said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from

15 hydroxyl groups, halogen atoms and linear or branched 1 to 4 C alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents

20 chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₁R₂R₃R₄) in which R₁ and R₂, which may be identical or different, represent a C₁ to C₆ alkyl group, or a phenyl group;

25 - (v) (meth)acrylic, (meth)acrylamide or vinyl monomers containing a fluoro or perfluoro group, such as ethylperfluorooctyl or 2-ethylperfluorohexyl (meth)acrylate;

30 - (vi) silicone-based (meth)acrylic, (meth)acrylamide or vinyl monomers, such as methacryloxypropyltris(trimethylsiloxy)silane or acryloxypropylpolydimethylsiloxane;

35 - (vii) ethylenically unsaturated monomers comprising at least one carboxylic, phosphoric or sulfonic acid, or anhydride, function, for instance acrylic acid, methacrylic acid, crotonic acid, maleic anhydride, itaconic acid, fumaric acid, maleic acid,

acrylamidopropanesulfonic acid, vinylbenzoic acid and vinylphosphoric acid, and the salts thereof;

- (viii) ethylenically unsaturated monomers comprising
5 at least one tertiary amine function, for instance
2-vinylpyridine, 4-vinylpyridine, dimethylaminoethyl
methacrylate, diethylaminoethyl methacrylate or
dimethylaminopropylmethacrylamide, and the salts
thereof.

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54. The polymer as claimed in claim 53, characterized
in that the additional comonomer(s) is (are) present in
an amount of from 30% to 99.99% by weight, especially
in an amount of from 50% to 99.9% by weight, in
15 particular from 70% to 99.5% by weight or even from 80%
to 99% by weight and better still from 90% to 98% by
weight relative to the weight of the final polymer.

55. The polymer as claimed in one of claims 47 to 54,
20 characterized in that the additional comonomers are
chosen, alone or as a mixture, from C₁-C₁₈ alkyl or C₃-
C₁₂ cycloalkyl (meth)acrylates, and especially from
methyl acrylate, methyl methacrylate, isobornyl
acrylate, isobornyl methacrylate, isobutyl acrylate,
25 isobutyl methacrylate, 2-ethylhexyl acrylate,
2-ethylhexyl methacrylate, dodecyl acrylate, dodecyl
methacrylate, stearyl acrylate, stearyl methacrylate,
trifluoroethyl acrylate and trifluoroethyl
methacrylate; or alternatively acrylic acid,
30 methacrylic acid, methacryloxypropyltris(trimethyl-
siloxy)silane, acryloxypropyltris(trimethylsiloxy)-
silane, acryloxypropylpolydimethylsiloxane and
methacryloxypropylpolydimethylsiloxane.

35 56. The polymer as claimed in one of claims 47 to 55,
characterized in that it has a weight-average molecular
mass (M_w) of between 5000 and 600 000 g/mol, especially
between 10 000 and 300 000 g/mol and better still
between 20 000 and 150 000 g/mol.

57. The use of at least one monomeric compound as
defined in one of claims 32 to 42, or of at least one
5 polymer as defined in one of claims 43 to 56, in a
composition, for giving said composition optical
effects, especially fluorescence or optical-brightening
effects.